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10/775,088	02/11/2004	Tetsuo Kurita	03500.101289.	1605

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EXAMINER	
ARCOS, CAROLINE H	

ART UNIT	PAPER NUMBER
2195	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/775,088	KURITA, TETSUO	
	Examiner	Art Unit	
	CAROLINE ARCOS	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 February 2004 and 20 May 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. JP 2003-034930.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *07/22/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-21 are pending for examination.

Claim Objections

2. Claim 3 is objected to because of the following informalities:

a. Claim 3, lines 5-6, the claim cannot have example relating back to the detail description or having figure numbers relating to the detail description of the invention in the body of the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-7 and 15-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

5. Claim 1 is rejected under 35 U.S.C. 101 because the claimed invention is directed to apparatus claims, but appearing to be comprised of software alone, without claiming associated computer hardware required for execution. For example, claim 1 recited spooling means and control means which are all software modules/software functions. Software alone is directed to a non-statutory subject matter. Claims 2-7 are rejected for similar reasons as discussed for their respective parent claims, as thy fail to present any limitations that resolve the deficiencies of the

claims from which they depend.

6. Claim 15 is rejected under 35 U.S.C. 101 because the claimed job processing program is software per se, as it is not statutorily embodied on any sort of physical hardware medium. Claims 16-21 are rejected for similar reasons as discussed for their respective parent claims, as thy fail to present any limitations that resolve the deficiencies of the claims from which they depend.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 2, 9 and 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Discrimination means which discriminates a coincidence state of print control information of an entered print job and print control information of a next print job succeeding to said print job was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims were rejected based on best interpreted by

examiner.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 2-6, 9-13 and 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

b. The claim language in the following claims is not clearly understood:

i. As per claim 2, line 4, it is not clearly understood what is meant by "discriminates a coincidence state of print control information", it is unclear what is meant by "state of print control information" (i.e. same job status: (sent, wait) or same attribute: (resolution, application ID, sheet size). Lines 9-10, it is not clearly understood what is meant by "an all coinciding state".

ii. As per claim 3, lines 4-5, it is not clearly understood what is meant by having a print copy number of 1 page each. (i.e. is the printed pages of each of the print job is one copy or are the jobs printing one page each.)

iii. As per claim 4, line 5, it is unclear what is meant by the generation of the entered print job. (i.e. processing) lines 5-7, it is not clearly understood whether "the entered job" and "the next job" are from a specific application or they are the application. it is unclear what is the relation between "an application software" and "a specific application".

iv. As per claim 5, it has similar limitation as claim 2 and 4. Therefore, it has the same deficiency.

v. As per claim 6, it has similar limitation as claim 5. Therefore, it has the same deficiency. Line 15, it is unclear whether the combining means is combining print jobs in first discrimination case and second discrimination case together or whether it is combining print jobs from first discrimination case separately from combining print jobs from second discrimination case.

vi. As per claims 9-13, they have similar limitation as claims 2-6 respectively. Therefore, they have the same deficiency.

vii. As per claims 16-20, they have similar limitation as claims 2-6 respectively. Therefore, they have the same deficiency.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

12. Claims 1, 8, 11, 15 and 18 are rejected under 35 U.S.C. 102(a) as being anticipated by Kimura (US 2002/0041395 A1).

13. As per claim 1, Kimura teaches an information processing apparatus for generating a print job based on a drawing command entered from application software and transferring the

generated print job to a printing apparatus, comprising:

spooling means capable of spooling a plurality of print jobs generated in succession. (par. [0004]; par. [0006]; par. [0007], lines 1-5; par. [0008]); and

control means capable of combining the plural print jobs entered from the spooling means and transferring them as a single print job to the printing apparatus (par. [0008]; par. [0014]; par. [0048]; par. [0052]).

14. As per claim 8, it is the job processing method claim of the information processing apparatus claim 1. Therefore, it is rejected under the same rational.

15. As per claim 11, Kimura teaches a second discrimination step which discriminates whether an application software having instructed the generation of the entered print job and the next print job succeeding to said print job is a specified application software;

wherein said combining step combines the print jobs in case said second discrimination step identifies that the application software having instructed the generation of the entered print job and the next print job succeeding to said print job is a specified application software (Par. [0064]; par. [0066], lines 8-15; par. [0069], lines 1-8).

16. As per claim 15, it is the job processing program claim of the information processing apparatus claim 1. Therefore, it is rejected under the same rational.

17. As per claim 18, it is the job processing program claim of the method claim 11. Therefore, it is rejected under the same rational.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

19. Claims 2, 4-6, 9, 12-13, 16 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura (US 2002/0041395 A1), in view of Boswell (US 5,559,933).

20. As per claim 2, Kimura doesn't explicitly teach said control means comprises:

first discrimination means which discriminates a coincidence state of print control information of an entered print job and print control information of a next print job succeeding to said print job; and combining means which combines said print job and said next print job in case said first discrimination means identifies an all coinciding state.

21. However, Boswell teaches first discrimination means which discriminates a coincidence state of print control information of an entered print job and print control information of a next print job succeeding to said print job; and combining means which combines said print job and said next print job in case said first discrimination means identifies an all coinciding state (col. 1,

lines 48-60).

22. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kimura and Boswell because Boswell teaching of combining 2 jobs that has the same state would improve system performance and throughput by grouping all alike jobs which increase the efficiency of print job processing.

23. As per claim 4, Kimura teaches second discrimination means which discriminates whether an application software having instructed the generation of the entered print job and the next print job succeeding to said print job is a specified application;

wherein said combining means combines the print jobs in case said second discrimination means identifies that the application software having instructed the generation of the entered print job and the next print job succeeding to said print job is a specified application software (par. [0064]; par. [0066], lines 8-15; par. [0069], lines 1-8).

24. As per claim 5, Kimura teaches said control means comprises:

second discrimination means which discriminates whether an application software having instructed the generation of the entered print job and the next print job succeeding to said print job is a specified application software; and

combining means which combines said print job and said next print job in case said second discrimination means identifies that the application software having instructed the generation of the entered print job and the next print job succeeding to said print job is a

specified application(par. [0064]; par. [0066], lines 8-15; par. [0069], lines 1-8).

25. Kimura doesn't explicitly teach first discrimination means which discriminates a coincidence state of print control information of an entered print job and print control information of a next print job succeeding to said print job; combining means which combines said print job and said next print job in case said first discrimination means identifies an all coinciding state.

26. However, Boswell first discrimination means which discriminates a coincidence state of print control information of an entered print job and print control information of a next print job succeeding to said print job ; combining means which combines said print job and said next print job in case said first discrimination means identifies an all coinciding state (col. 1, lines 48-60).

27. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kimura and Boswell because Boswell teaching of combining 2 jobs that has the same state would improve system performance and throughput by grouping all alike jobs which increase the efficiency of print job processing.

28. As per claim 6, Kimura said control means comprises:

second discrimination means which discriminates whether an application software having instructed the generation of the entered print job and the next print job succeeding to said print

job is a specified application software; and

combining means which combines said print job and said next print job in case said second discrimination means identifies that the application software having instructed the generation of the entered print job and the next print job succeeding to said print job is a specified application software(par. [0064]; par. [0066], lines 8-15; par. [0069], lines 1-8).

29. However, Kimura doesn't explicitly teach that first discrimination means which discriminates a coincidence state of print control information of an entered print job and print control information of a next print job succeeding to said print job; combining means which combines said print job and said next print job in case said first discrimination means identifies an all coinciding state

30. However, Boswell teaches that first discrimination means which discriminates a coincidence state of print control information of an entered print job and print control information of a next print job succeeding to said print job; combining means which combines said print job and said next print job in case said first discrimination means identifies an all coinciding state (col. 1, lines 48-60).

31. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kimura and Boswell because Boswell teaching of combining 2 jobs that has the same state would improve system performance and throughput by grouping all alike jobs

which increase the efficiency of print job processing.

32. The combined teaching of Kimura and Boswell doesn't explicitly teach that combination of both cases. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to conclude that combining or grouping jobs based on both the state of the jobs and the application specific is one of the alternation of combination that one use to enhance system performance and throughput.

33. As per claim 9, it is the job processing method claim of the information processing apparatus claim 2. Therefore, it is rejected under the same rational.

34. As per claims 12-13, they are the job processing method claim of the information processing apparatus claims 5-6. Therefore, they are rejected under the same rational.

35. As per claim 16, it is the job processing program claim of the information processing apparatus claim 2. Therefore, it is rejected under the same rational.

36. As per claims 19-20, they are the job processing program claim of the information processing apparatus claims 5-6. Therefore, they are rejected under the same rational.

37. Claims 3, 10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura (US 2002/0041395 A1), in view of Boswell (US 5,559,933) as applied to claims 2, 9 and

16 above, and further in view of applicant admitted prior art (AAPA) in the original filed specification.

38. As per claim 3, Kimura teaches combining means. However, the combined teaching of Kimura and Boswell doesn't explicitly teach said combining means combines the print jobs in case said first discrimination means identifies that the entered print job and the next print job have a print copy number of 1 page each. However, AAPA teaches identifies that the entered print job and the next print job have a print copy number of 1 page each (pg. 3, lines 9-20).

39. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kimura, Boswell and AAPA because AAPA teaching of identifying jobs having a print copy number of 1 page each would improve the grouping techniques of Kimura and Boswell system and expedite the processing of print jobs by grouping small print jobs together.

40. As per claim 10, it is the job processing method claim of the information processing apparatus claim 3. Therefore, it is rejected under the same rational.

41. As per claim 17, it is the job processing program claim of the information processing apparatus claim 3. Therefore, it is rejected under the same rational.

42. Claims 7, 14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura (US 2002/0041395 A1), in view of applicant admitted prior art (AAPA) in the original filed specification.

43. As per claim 7, Kimura doesn't explicitly teach said printing apparatus includes an engine unit executing an electrophotographic process and executes a predetermined resetting process at every partition of print job transferred from said information processing apparatus.

44. However, AAPA teaches said printing apparatus includes an engine unit executing an electrophotographic process and executes a predetermined resetting process at every partition of print job transferred from said information processing apparatus (pg. 3, lines 20-26).

45. It would have been obvious to one of ordinary skill in the art at the time the invention was to combine Kimura with AAPA because AAPA teaching an engine unit executing an electrophotographic process and executes a predetermined resetting process at every partition of print job transferred from said information processing apparatus improve system performance in controlling toner functionality.

46. As per claim 14, it is the method claim of the information processing apparatus claim 7. Therefore, it is rejected under the same rational.

47. As per claim 21, it is the job processing program claim of the information processing apparatus claim 7. Therefore, it is rejected under the same rational.

Conclusion

48. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 20020089689 A1 teaches Methods and systems for print system component-generated job separator pages.

US 20010053295 A1 teaches Print control apparatus and method, and print system.

US 7382477 B2 teaches Information processing apparatus capable of transferring print job to another information processing apparatus, and its control method.

US 20020026538 A1 teaches Information processing apparatus issuing job to peripheral device and method for issuing job to peripheral device.

49. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAROLINE ARCOS whose telephone number is (571)270-3151. The examiner can normally be reached on Monday-Thursday 7:00 AM to 5:30 PM.

50. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

51. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/
Supervisory Patent Examiner, Art Unit 2195

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Examiner, Art Unit 2195